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EXAMINER

EICKHOLT, EUGENE H

ART UNIT

PAPER NUMBER

2854

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44

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

08/856,944

Applicant(s)

HOFFMANN ET AL.

Examiner

Eugene H Eickholt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Remand by Board on 4-25-03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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In view of the Remand by the Board of Appeals, an updated search and view of the prior art has been conducted, primarily as the Examiner now assigned the application recalled issuing Schulz 5507228 (which has a U.S. filing date 12 days after applicants German priority date) and which reference is deemed a primary reference as will be apparent in the matters discussed below. The final rejection given in paper no. 30 stands withdrawn. Applicant is required to submit a sworn English translation of the next response to this Office Action if he intends to remove the Schulz reference as an effective reference.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz in view of Kobler (5488903).

Schulz has all the elements of the claims except hydraulic fluid rather than pressurized air is used to expand and hold the image carrier sleeve 61a. Schulz in column 7, lines 41-56 teaches use of a this metal flat piece rolled into cylindrical form 61 and joined at the ends by a well joint 84 shown in Fig. 2b. This weld is further preserved by filing or grinding to produce a smooth surface as set forth in lines 55-56. This reads or processing the weld crown to form the continuous uniform outer surface of the sleeve.

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Schulz refers to the use of hydraulic fluid. Air is one form of fluid commonly used to hold printing sleeves to their roll supports as evidenced by Kobler et al who teaches use of “compressed air” at column 1, lines 28-29. It would have been obvious to one of ordinary skill in the printing art to have followed the Kobler et al teaching of using air as the fluid for expanding the wandrel support of Schulz as is a free source of fluid not subject to water or oil liquid type fluids handling problems, such as leaking.

Regarding claim 2, Schulz does not teach aluminum, citing stainless steel as an example of a metal to be used. However, Schulz also refers to the metal for the sleeve as this walled and light weight. Aluminum is well known in the printing art for such properties as evidenced by Kobler et al who teaches use of aluminum at column 2, line 12 for a thin sleeve metal material. It would have been obvious to select from well known metal alternatives used in the same field of invention, slip-in, ship-off printing cylinders.

Schulz refers to contour or roller forming process at column 7, lines 48-49 to form the flat sheet of metal into a cylindrical form. Claim L refers a bending step. Schulz inherently must bend in his contour forming step. Kobler et al specifically refers to an “bending or folding” step in column 3, line . Regarding claim 7, note the Schulz teaching of carrying a “sleeve like flexible printing plate “at column 1, lines 18-19.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1 above, and further in view of Fromson.

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Neither Schulz or Kobler et al teaches the claim 3 steps of roughing, anodizing and photosensitive coating. Such process steps using aluminum as a base are well known as evidenced by Fromson et al in column 2, lines 4-25.

It would have been obvious to coat the sleeve metal sleeve 61a of Schulz with a material known to carry out an expected desired result such as the preparation by roughing and anodizing of an aluminum surface followed by coating with a photosensitive material. Motivation would have been the use of such a photosensitive coated sleeve to prepare lithographic printing surface as contrasted with the <sup>of wire</sup> ~~grainure~~ copper plate of Schulz. Note line 2, column 12 teaches graining (roughing) may be carried out "chemically" as called for in claim 3.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited above as applied to claim 1 above, and further in view of Tittgemeyer.

Neither Schulz or Kobler et al teach coating a water carrying (loving) substance over a metal printing sleeve.

However, the particular working surface placed on the carrying sleeve would necessarily depend on the expected function desired to be obtained. For example, Tittgemeyer (4,913,048) discloses the placement of a conventional water conducting coat on the outer surface of a printing roller so as to achieve a fluid releasing function. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize any conventional working surface on the roller of Schulz depending on the function desired. For example, it would have been obvious to utilize a roller surface in Schulz for the reasons and as taught by Tittgemeyer

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(4,913,048). The motivation would have involved merely the obvious selection of conventional roller surfaces so as to obtain the expected and desired results therefrom.

Column 4, lines 54-58 of Tittgemeyer teaches the chromium layer 4 is a water carrying layer covering the a portion of the copper ink carrying layer 3. It would have been obvious to apply such a teaching to Schulz sleeve 61a where "offset" printing plates are desired.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1 above, and further in view of Sattrup.

Schulz teaches plating copper on the sleeve followed by etching to form the gravure patton. Engraving is a well known process for forming copper gravure patterns or evidenced by Sattrup. Either etching or engraving is used to form the copper gravure surface. It would have been obvious to select engraving over etching as this avoids the use of chemical handling and possible toxic by products.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1 above, and further in view of Burke et al.

Schulz does not teach a rubber coating over the entire periphery of the metallic sleeve 61a. However, rubber coated rolls are well known in the art for transport of webs, ie, a feed roll or evidenced by Burke et al. The outer layer 34 is for rubber as set forth in column 4, line 2. The inner layer 44 of the sleeve is of expandable metal as set forth in column 4, line 31. It would have been obvious to utilize the expandable metallic surface of Schulz to support the rubber layer 44 of

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Burke et al where a transport function would support motivation, ie, feeding of a web in a printing press.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1 above, and further in view of Doublet.

Neither Stolz or Kobler et al discusses the supply source for the blanks formed into printing sleeves. The analysis of claim 8 is the same as claim 1 otherwise.

Supplying sheet metal in roll form for further fabrication form as evidenced by Doublet who in Fig. 1 shows reel 11 of sheet metal which is cut into blanks which are cylindrically formed and welded. It would have been obvious to use the roll supplied sheet metal as taught by Doublet for the supply source of the Schulz blanks as the roll form, permits a continuous in line feed as shown by Doublet in Fig. 1.

Schulz by grinding his weld bead 84 prepares a base sleeve layer to receive the plated and them etched printing plate copper coating. Such processing using grinding and upper plating reads on the homogeneous, uniform continuous outer surface formation formed on the outer sleeve surface and the weld seam. Prior to etching the copper, it is prepared for variable format etching.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1 above, and further in view of Dekumbis et al.

Details of the welding technique employed by Schulz are into set forth other than to refer to any suitable techniques to form the weld joint. Dekumbis et al (5,147,999) discloses

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conventional welding techniques comprising the use of welding filler materials, targeted gas feeds, and deposit welding. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the weld in Schulz by using conventional welding techniques, as claimed, especially in view of the teaching of the same as disclosed by Dekumbis et al (5,147,999).

Dekumbis et al refers to welding with filler materials in column 3 line 58 and to welding with "inert gas shielding" in column 3, line 57 which reads in claim 10.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited as above as applied to claim 3 above, and further in view of Doublet.

The remarks regarding claims 1 and 3 are incorporated for the same limitations. Aluminum is taught by Fransom as previously pointed out in regards claim 3.

Doublet is applied against the step of cutting from a sheet metal roll and the remarks contained in the rejection of claim 8 are herein incorporated in regards Doublet.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1, 8 above, and further in view of Sattrup.

The remark concerning claims 1 and 8 are incorporated by reference in regards the same limitations found in claims 14-15. Sattrup is cited for the mechanical engraving of copper previously explained in the rejection of claim 5 which remarks are incorporated by reference. Sattrup further teaches "high class copper" is electroplated onto an intermediated surface copper



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layer. The glass generating additions are the “ulloys” making the high gloss copper a “copper alloy” as used in claim 15.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claim 1 and 8 above, and further in view of Burke et al.

The analysis given in the rejection of claims 1 and 8 applies by incorporation here. Burke et al is cited for the rubber coating limitation and the analysis given in the claim 6 rejection is applied by incorporation herein.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art cited above as applied to claims 1 and 8 above, and further in view of Jenkins.

The analysis given in the rejection of claims 1 and 8 applies to the same limitations found in claim 17 and are incorporated by reference.

Schulz does not discuss a ceramic coating outer layer. However, such coatings for ink application rolls well known as evidenced by Jenkins. Column 3, lines 14-21 teach ceramic coating of the thin walled cylinder with column 2 lines 25-26 teaching the metal of the cylinder may be any of steel, copper, nickel or aluminum. It would have been obvious to one of ordinary skill in the printing art to have covered the steel sleeve of Schulz with the ceramic spray coating of Jenkins. Motivation may be found in the express teaching of Jenkins that such is useful in ink rolls desired to have “wear resistant coating”. See column 2, lines 33-34.


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Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. A shortened statutory period of 3 months is set to respond.

E EICKHOLT/pj

06/23/06



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